REMARKS

In the Office Action mailed September 14, 2005, the Examiner rejected claims 1-11 and 19, 20 under 35 U.S.C. § 112 as being indefinite. Claims 12-18 were previously withdrawn and cancelled in response to a restriction requirement. Applicant's subsequently filed an amendment after final, which the Examiner did not enter as indicated in an Advisory action mailed May 8, 2006. A Notice of Appeal was earlier filed on February 14, 2006.

In the instant amendment, the Applicants amend claim 2 to correct an antecedent basis error. Also, new claims 21-23 are added as dependent claims.

The rejection based on 34 U.S.C. § 112 is respectfully traversed. It is respectfully submitted that a person of ordinary skill in the art of patch clamping, to which the present invention pertains, would clearly understand the reference to a "high resistance seal." Such a seal with the cell membrane located on the tip of the patch clamping pipette is a well-known basic requirement for the patch clamping technique. The seal is also alternatively referred to in the art as a "gigaseal" or "giga ohm seal" as described in the instant application.

Numerous technical references related to patch clamping refer to the seal alternately as a high resistance seal and as a giga ohm or giga seal. Just a small selection of such references are enclosed herewith for the Examiner's review, these include: Higashi et al., "Preparation and some properties of giant liposomes and proteoliposomes," J Biochem (1987) 101(2):433-440; http://www.citeulike.org/user/davidng/article/100090, printed 7/14/2006 (see page 2); Lynch, "PHYS2170: Electrophysiological techniques II: Patch-clamping," http://www.biophysics.org/btol/img/Ypev-Part1.pdf (see page 1); Lehmann-Horn et al., "Nanotechnology for neuronal ion channels," http://jnnp.bmjjournals.com/cgi/content/full/74/11/1466, printed 7/14/2006 (see page 3); Week Six: Patch Clamping, http://www2.uic.edu/~bnardu1/week_six.htm, printed 7/14/2006 (see page 1) ; and Molleman, "Patch Clamping, An Introduction to Patch Clamp Electrophysiology," John Wiley & Sons, Ltd. (2003) (see page 103). (These references are cited on an enclosed 1449 form). Many more such references can be found through a simple internet search. Such terminology is clearly well understood in the art and would not be considered indefinite by a person of ordinary skill in the art.

In fact, in the original application as filed, a parenthetical reference to "giga ohm" was included in the claims after the recitation of high resistance seal. While this parenthetical was deleted at the Examiner's request to better comply with U.S. practice, the fact remains that it was part of the original disclosure, which supports the understanding of a person of ordinary skill in the art. Another, specific disclosure of the understanding of the claimed "high resistance seal" is set forth, for example, in FIG. 12 of the instant application. In FIG. 12, "RSeal Pass = 1 GOhm" is defined and the control algorithm discloses determination of a giga seal as present when "RSeal>RSealPass." In other words, the seal resistance is considered satisfactory when measured to be greater than 1 giga ohm. The control algorithm of FIG. 12 is described in the specification at pp. 29-30.

In order to further define the present invention, consistent with the understanding in the art and supported by the specific disclosures identified above, new dependant claims 21-23 are added wherein the high resistance seal is specifically defined as being "least about 1 GOhm."

In view of the foregoing remarks it is believed that the application is now in form for examination on the merits and an early and favorable office action is earnestly solicited. In the event that the Examiner has any questions regarding this application or the amendments made herein, he is respectfully requested to contact the undersigned as indicated below.

Applicant believes that no additional fee is required for submission of this response. However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 50-0310 (order no. 061082-0005).

Respectfully submitted,

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